

AGUA FRIA NATIONAL MONUMENT



WILDERNESS PROPOSAL

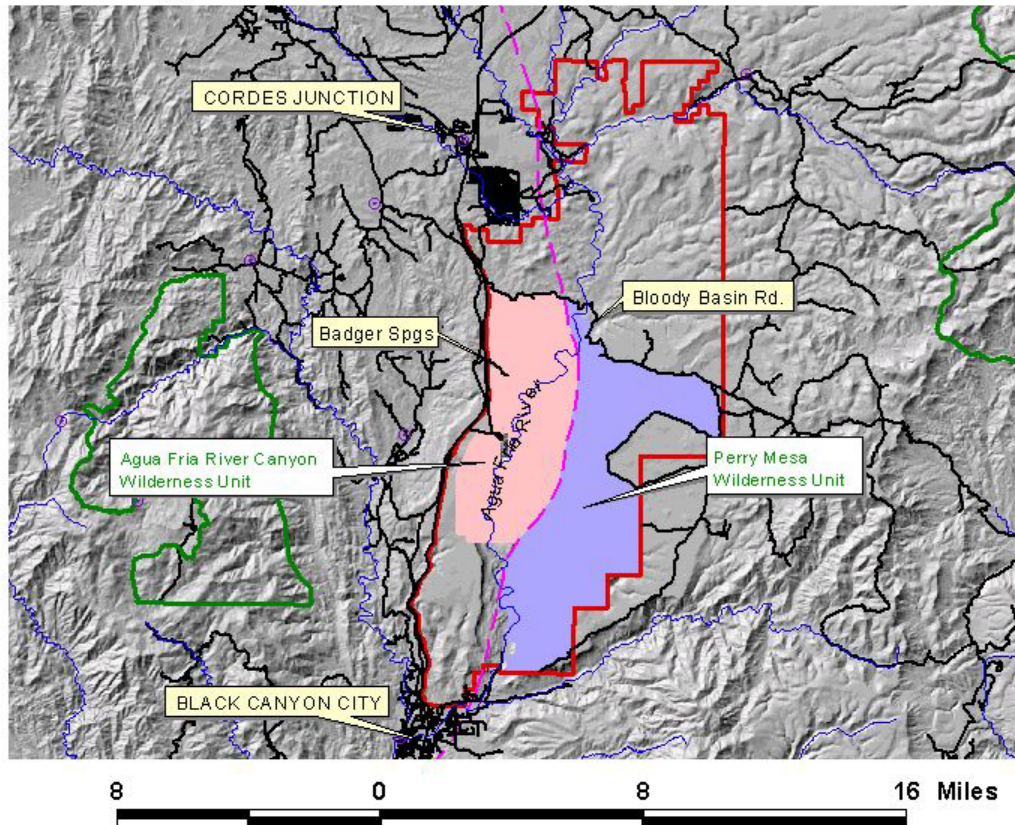
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**ARIZONA
WILDERNESS
COALITION**

NOVEMBER 2002

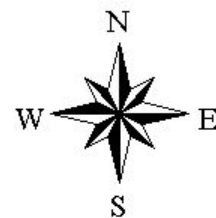
Proposed Wilderness in Agua Fria National Monument



**Arizona
Wilderness
Coalition**

Legend

- Existing Wilderness
- Public Travelway System
- Powerline
- National Monument Boundary



November 2002

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Summary

The Arizona Wilderness Coalition (AWC) recommends 28,667 acres in two contiguous Units for consideration as Wilderness Study Areas in the Agua Fria National Monument. The Agua Fria River Canyon Unit is 11,892 acres and the Perry Mesa unit is 16,775 acres. Protecting these areas as wilderness will assist the Bureau of Land Management in its responsibility to protect the objects of the Agua Fria National Monument. Our proposals are reasonable, considering the mandates of the monument proclamation to protect biological and cultural resources. Our proposals allow for the continued use and maintenance of facilities related to the management of livestock grazing, state game and fish administered wildlife waters, and mining operations under the provisions of the wilderness act in sections 4 (c) and (d). The AWC proposals make up less than 40% of the total monument, allowing for many other management areas within the Agua Fria National Monument. In the following documentation it will be shown that the two areas we are proposing for wilderness protection do meet the requirements for protection as Wilderness Study Areas (WSAs) in the current planning process.

The documentation will review the continuing obligations of the Bureau of Land Management (BLM) to consider lands for Wilderness suitability and the justifications given by the AWC for lands within the Agua Fria National Monument to be considered for Wilderness Study Area designation. The documentation will discuss the role of wilderness in multiple use management, providing justification for wilderness being considered an avenue for multiple resource uses, not just recreation. The Wilderness Study Area proposals included within have been made under the guidelines of sections 102, 201, 202, and 205 of FLPMA. Maps identifying specific boundaries, photographic documentation, and detailed narrative descriptions of the areas' wilderness characteristics are provided in the unit descriptions as required by the USDI BLM Handbook *Wilderness Inventory and Study Procedures* H-6310-1 section .06 (E). Also included are descriptions of supplemental values such as "ecological, geological, or other features of scientific, educational, scenic, or historical value" as outlined in the BLM Handbook H-6310-1 and the Wilderness Act of 1964. P.L. 88-577; 16 U.S.C. § 1131(c) The included documentation and the BLM's legal mandate to include the

public in its land use planning process as outlined in section 202 of FLPMA makes this citizen's wilderness proposal a valid land use recommendation, that must be addressed in the current Agua Fria National Monument land use planning process.

General Justifications for Wilderness Study Areas in Agua Fria National Monument

In the history of wilderness legislation and federal land management, the Federal Lands Policy and Management Act of 1976 made one of the largest contribution in efforts to retain federal lands in the public ownership and preserve these lands in their natural state. This was especially important to the protection of BLM lands that have wilderness characteristics. With passage of the Federal Lands Policy and Management Act the BLM was mandated to inventory their lands for wilderness characteristics for the first time under section 603 of the FLPMA. This was not intended to be a one-time deal as many BLM employees in Arizona have been wrongly led to believe. It is clearly outlined in the BLM's own handbook H-6310-1.01 that wilderness inventories and Wilderness Study Area designation are within the realm of land use planning in sections 201 and 202 of FLPMA as interpreted from the following passage:

The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern. This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values. The preparation and maintenance of such inventory or the identification of such areas shall not, of itself, change or prevent change of the

management or use of public lands. P.L. 94-579,
§ 201(a), 43 U.S.C. § 1711(a).

This passage has been further interpreted by the BLM to give justification for wilderness inventory as outlined in the 2001 U.S. Department of the Interior, Bureau of Land Management, *Wilderness Inventory and Study Procedures Handbook* H-6310-1 sec .06 (A) "The BLM will prepare and maintain on a continuing basis an inventory of public lands to determine the presence or absence of wilderness characteristics," this agrees with the mandates set forth in FLPMA above. Further direction was given to the BLM from their handbook to consider lands that may have wilderness characteristics not addressed in current land use plans, such as certain lands in the Agua Fria National Monument that have been acquired by the BLM since the last Resource Management Plan in 1988. The location of these acquired lands can be seen on the map on page 39. In section .06(B) of the BLM Handbook H-6310-1 it is explained that, "All lands acquired through exchange shall undergo a wilderness inventory." The BLM Handbook H-6310-1 section .06(d) further states, "lands in externally generated proposals that document new or supplemental information regarding resource uses and condition of the lands not addressed in current land use plans and/or prior wilderness inventories [should be inventoried]." This direction has given the Arizona Wilderness Coalition the avenue for providing citizen's wilderness inventories and proposals in the Agua Fria NM planning process.

Multiple Use Management

The Bureau of Land Management was directed to manage its lands under the multiple use philosophy with the passage of the Federal Lands Policy and Management Act of 1976. This direction and the public participation mandate challenged the BLM to change its form of management. Instead of managing only for extractive uses, such as timber and mining, the BLM began to actively manage lands to protect naturalness, and facilitate recreation. The Presidential proclamation of 5 new national monuments here in Arizona and in other states has also given a challenge to the BLM. This new challenge is to manage these national monuments for the "proper care and

management of the objects to be protected," as named in the January 2000 Presidential proclamation for Agua Fria National Monument, under the authority of the American Antiquities Act of 1906 (16 USC 431-433). Many of the philosophies and techniques of multiple use management will be a great assistance to the BLM in their new responsibilities to protect the objects of a national monument. This does not mean that management of the monument can be done using only multiple use techniques. These two excerpts from the definition of multiple use in FLPMA provide justification for wilderness as a valid form of multiple use management.

"'multiple use' means the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people"

"...including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values." P.L. 94-579, § 103(c); 43 U.S.C. § 1702(c)

Parts of the multiple use definition were also addressed as elements of the definition of wilderness as in the Wilderness Act of 1964, "may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." P.L. 88-577; 16 U.S.C. § 1131(c) The similarity of these two laws is not a coincidence; the Wilderness Act fulfills an important niche in the scheme of multiple use, it protects those resource values explained in the multiple use definition. This definition also explains that all activities should occur, "without permanent impairment." P.L. 94-579, § 103(c); 43 U.S.C. § 1702(c) The obligation of the BLM to facilitate the multiple use of the public lands "without permanent impairment" can best be achieved by protecting areas as wilderness. Wilderness has no permanent improvements and is managed to preserve the natural conditions of the land. THE BLM's 2001 handbook H-6310-1 sec .06 clearly states, "Wilderness is a resource which fits within the framework of multiple use on the public lands." This is interpreted to mean that wilderness has a place in the future management of the monument. Furthermore, wilderness protection should not only be used as a management

technique to facilitate recreation as it has traditionally been viewed, but used as a way to, "prevent unnecessary or undue degradation" of the lands in the monument. P.L. 94-579, § 302(B); 43 U.S.C. § 1732 (B) The BLM can use wilderness as a tool to fulfill this mandate.

The BLM must consider the intention of the Wilderness Act in meeting the needs of Americans and Arizonans. Meeting America's "present and future needs", as described in the multiple use definition above, should take into account that population has grown by 40 percent in Arizona since 1990 (US Census Bureau 2000). If Arizona continues to grow at this rate, wilderness will become an enduring resource as a place for citizens to seek solitude from the millions of people inhabiting the Phoenix, Flagstaff, Prescott and Tucson areas. The BLM handbook H-6310-1 sec .06, addresses the supplemental values of wilderness for people and for protecting other resources such as plants and wildlife: "In addition to its value as setting for primitive recreation or solitude, wilderness can provide a range of benefits to other resource values and uses which are of significance to the American people." In section 2(a) of the Wilderness Act of 1964 Congress addressed similar intentions to "secure for the American people of present and future generations the benefits of an enduring resource of wilderness". It was the intention of congress to protect valuable lands, as wilderness in the instance of such population growth as Arizona is experiencing. Arizona's Wildlands and especially wildlands within national monuments should be preserved as wilderness to protect the resource values for the expanding population of Arizona.

The AWC believes that the order of operations for management of the monument starts with the January 11th 2000 proclamation and any activity or management option should be in full agreement with the protection of the objects identified in the monument proclamation. Multiple use management techniques can be used to manage Agua Fria National Monument, but not all uses can or should occur within the monument. Furthermore, wilderness designation as explained above will be one part of the land management mosaic that the BLM should use to protect the objects of the Agua Fria National Monument.

Examples of Wilderness in National Monuments

Franklin Roosevelt created the Organ Pipe Cactus National Monument on April 23, 1937, to protect the rare Organ Pipe Cactus and 26 other cacti species. The uniqueness and importance of the area is in the rarity of the Organ Pipe Cactus, and the even more rare Senita cactus, both of which are found nowhere else in the United States. The National Park Service now manages 312,000 acres of Organ Pipe NM as Wilderness, as designated in 1978 (Browning et al 1988). Organ pipe NM is 330,668 acres making it ninety four percent wilderness. The AWC believes that Organ Pipe Cactus NM sets a good example of how wilderness can be used to effectively protect the objects of the monument as designated under the Antiquities Act of 1906.

Examples of National Monuments and Parks using wilderness to protect valuable resources abound here in Arizona and the Southwest. The following parks were all National Monuments to begin with and are listed with the percentage of total land as wilderness: Joshua Tree National Park 54%, Saguaro National Park 78%, Petrified Forest National Park 53%. In many of these parks and monuments previously abused lands have been restored and enhanced to meet wilderness criteria. The various justifications listed here should provide the BLM, with more than adequate justification for considering and using wilderness as a tool to protect the objects of the Agua Fria National Monument.

New and Supplemental Information

The Arizona Wilderness Coalition is providing Wilderness Study Area proposals at the proper time and in the appropriate format as outlined by the BLM's directives. The following section covers the new information requirements for the AWC proposed lands to be considered by the BLM for WSA protection. The Arizona Wilderness Coalition believes that there is general new information that can be presented for all areas, and specific supplemental and new information for each specific proposed unit. As mentioned above in the general justifications section, this direction comes from the BLM Handbook H-6310-1 sec .06 (d) stating, "lands in externally generated proposals that document new or supplemental information regarding resource uses and

condition of the lands not addressed in current land use plans and/or prior wilderness inventories." This means that the monument proclamations obviously change the resource management of the lands within the monument, and new wilderness inventories should be done to address the changing management needs. This also mandates that the BLM consider the Arizona Wilderness Coalition proposals as they do provide both new and supplemental information. The process of maintaining a current inventory should now be on going after the monument designation, due to changes in management such as specified in the January 11th 2000 Agua Fria National Monument proclamation, that states:

All Federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws, including but not limited to withdrawal from location, entry, and patent under the mining laws, and from disposition under all laws relating to mineral and geothermal leasing, other than by exchange that furthers the protective purposes of the monument.

The BLM handbook H-6310-1 and the Agua Fria National Monument proclamation mandates work together in that the proclamation changes the management direction of the 72,593 acres of BLM land and that continuing inventories must be done to identify how to protect the objects of the monument. This information should be considered as "New Information Suggesting That an Area of Public Lands Has Wilderness Characteristics." as outlined in BLM Handbook H-6310-1.06 (E). The following is a list of specific "New Information" regarding resource uses and management direction:

1. The January 11th 2000 Agua Fria National Monument proclamation changes the management of the 72,593 acres of federal land from an area of many multiple uses to an area where the primary management goal is protection of the objects identified in the proclamation.
2. "The area (Agua Fria National Monument) has no known potential for oil and gas development. There are no existing mineral leases. New mining claims will be prohibited as the Proclamation withdraws the area from the 1872 Mining Law" (http://www.az.blm.gov/fr_nlcs.htm 2002).

3. The general understanding of Sonoran Desert and Semi-desert grassland ecology and the proper methods for managing functioning ecosystems is more adequately understood and valued than it was 10-20 years ago when past inventories were conducted.
4. Many Threatened and Endangered Species have been identified since the last wilderness inventories and some of their valuable habitat exists within the AWC proposed WSAs.
5. The Population of Arizona has increased by 40% since 1990.

These five points and the detailed information contained within the individual unit proposals provide substantial proof that wilderness characteristics do exist and should be adequately considered in the current planning process.

Roads

The Agua Fria National Monument planning process is unique from a wilderness standpoint. This uniqueness comes from the January 11th 2000 monument proclamation, in two statements, 1.) "For the purpose of protecting the objects identified above, all motorized and mechanized vehicle use off road will be prohibited, except for emergency or authorized administrative purposes." 2.) "Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be the dominant reservation." The AWC believes these statements make this monument planning process unique because it allows the BLM to close roads within the monument lands for the sole purpose of protecting the objects of the monument. This also provides another piece of new information that affects resource uses and management within the monument. A number of studies authored by prominent biologists, ecologists and conservation biologists with peer-reviewed publications demonstrate that roads are one of the most significant causes of the loss of native biodiversity. If the BLM intends to protect monument objects, which are mostly of archeological, ecological and, biological nature, then closing and restoring roads should be the first step, as is suggested in the literature. One paper written by Kim Crumbo, AWC Grand Canyon Regional Coordinator, outlining and providing comprehensive

references that support these conclusions have been provided in appendix A as supplemental information.

This uniqueness and the facts presented about the impacts of roads should make wilderness a suitable alternative even for monument lands that contained roads at the time of the proclamation. In the designation of the first wilderness areas (in the 1964 Wilderness Act itself) and in scores of precedents as it has subsequently designated additional wilderness areas, Congress has included lands that have been impacted by prior human activities. This includes old mining prospects and old mines, lands damaged by off-road vehicle use, and old "roads" (ranging from simple one-time vehicle tracks across the landscape to constructed roads suitable for highway vehicles)." (Scott 2001). An example of congress's intention for the National Wilderness Preservation System is the designation of the Great Swamp Wilderness just outside New York City. The Great Swamp Wilderness in New Jersey was created out of two units that were split by a paved county road with bridges and all. After designation by congress in 1968 the road was removed and restored to make one wilderness unit of 3,660 acres (Scott 2001). This is an excellent example of the intentions of congress, due to it being designated in 1968 by many of the same representatives that passed the original Wilderness Act in 1964. It proves that if an area or two adjacent areas have wilderness potential, but lack roadlessness or have some human improvements, restoration can be used to restore wilderness character to protect the integrity of all lands in the proposed area.

With regards to the entire monument, roads and trails must be assessed using some form of definition. In the January 11th 2000 Agua Fria National Monument Proclamation the BLM is directed to close all routes not meeting the definition of a road. This is made clear from the statement, "For the purpose of protecting the objects identified above, the Secretary of the Interior shall prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes." The AWC believes the definition as outlined in FLPMA should be used as it will assist the BLM not only in development of a travelway plan, but also in identifying roadless units for wilderness inventory.

The word 'roadless' refers to the absence of roads, which have been improved and maintained by mechanical means to insure relatively regular and continuous use. A way maintained solely by the passage of vehicles does not constitute a road." (H.R. Rep. No. 94-1163 at page17 (1976))

This definition is also more fully explained in the BLM handbook H-6310.13 (A) 1. The Arizona Wilderness Coalition believes that the BLM should use this definition and its interpretation in their Handbook H-6310. On July 9th 2002 the AWC and the Grand Canyon Chapter of the Sierra Club sent a letter to Kathy Pedrick, Agua Fria Manager, outlining our interpretation of Congressional and Presidential laws handed down to the BLM relating to roads in AFNM, this letter is attached as appendix B.

Furthermore, the destruction of monument objects primarily occurs along roads in the Agua Fria National Monument. Pictures in the routes analysis show numerous spots along the monument roads and routes where destruction of objects of the monument has taken place

Other impacts to monument objects are shooting, illegal plant and animal harvesting, trash dumping, and off road vehicle travel, all of these actions are facilitated by road access to remote regions within the monument. Management of the monument would be tremendously simplified with a limited road network. A limited road network would allow monument personnel to more intensely patrol the public roads, do restoration and maintenance work as well as offer interpretation and various other visitor services to protect the objects for which the monument was designated to protect. Closing roads is a very contentious issue, especially inside a new national monument that encompasses lands and roads that have previously been used in ways that do not protect features of natural and cultural significance.

The BLM has been given a challenge of managing the Agua Fria NM and it is in this time of the planning process and the years to come that the BLM should be informing the public of its mandate to prevent uses that do not further the protection of the objects for which the monument was created. Ultimately, the BLM must make justifications for keeping routes open by starting with the absolute minimum

of routes, such as Bloody Basin Road, and working out from there. During this process protecting the objects of the monument should be the primary factor in determining the status of a route.

Off road vehicle users and target shooters should be directed to other areas outside the monument to facilitate long-term protection of the monument objects. The construction of roads and the continued use of unmanaged motorized trails and routes will continue to degrade the natural and cultural objects of the monument, as all literature points to roads as a large factor in the loss of species and their habitats, as well as impacting archeological resources.

Conclusion

The documentation provided here has reviewed the continuing obligations of the Bureau of Land Management (BLM) to consider lands for Wilderness suitability and the justifications given by the AWC for lands within the Agua Fria National Monument to be considered for Wilderness Study Area designation. The topics of how wilderness fits within the framework of multiple use management have been provided to assist the BLM in finding justification for considering wilderness as a viable option in multiple use. The general supplemental wilderness values of the monument and its potential wilderness study areas have been discussed and support the obligation of the BLM to consider our proposals. New information regarding lands that may have wilderness characteristics, with rationale for how it differs from past inventories has also been provided. Overall, it is the belief of the Arizona Wilderness Coalition that we have met the requirements outlined in the USDI BLM Handbook *Wilderness Inventory and Study Procedures* H-6310-1. The issue of roads has been addressed separately to help the BLM understand how critical a limited and conservative public transportation plan will protect and enhance the values and the objects of the monument.

Finally, the Arizona Wilderness Coalition Proposals are reasonable and allow for the continuance of existing uses under the "minimum requirement" standards outlined in the Wilderness Act and BLM's handbook, *Interim Policy for Lands Under Wilderness Review* H-8550-1.

The Agua Fria National Monument has been created because it is unique and archeologically important in the landscape of the desert southwest. Protecting areas as wilderness is the ultimate tool for the people of Arizona to preserve this natural and cultural heritage for future generations, as a place with roads and ORV trails will not stand the test of time and all the uses and abuses that come along with them. Many ask, "What added protection does wilderness provide over monument protection?" Wilderness offers permanent protection from future road development, motorized trails, and other improvements that are inconsistent with the primitive non-mechanized philosophies of the Wilderness Act. Wilderness can only be designated through Congress, which means it can only be undesignated by Congress. Monument management plans are done every 15 to 20 years and can change management on various different levels. Development of camping areas, visitor services, or new scenic loop roads could be suggested in a management plan 20 years from now. This is where the permanent protection of wilderness areas in a monument prevents any developments in those areas, leaving them wild. The proposed units of Perry Mesa, and the Agua Fria River Canyon have wilderness characteristics and deserve the protective status of Wilderness Study Area designation in this monument planning process.

Agua Fria National Monument Proposed Wilderness Study Area Units

Summary

The Arizona Wilderness Coalition has made two Wilderness Study Area (WSA) proposals for the Agua Fria National Monument. The proposals are made in a single write up as the units are contiguous and function together as one 28,667-acre unit. The only reason for two units is the existence of the Navajo-westwing power line that bisects the two units. The two units are briefly described separately, but the rest of the write up combines the two units.

Perry Mesa



Size: 16,775 acre

Unit Description:

The proposed Perry Mesa wilderness unit in the Agua Fria National Monument has an abundance of unique archeological and ecological resources that deserve wilderness protection. The Perry Mesa unit is located about 40 miles north of Phoenix on the east side of I-17, immediately north of Black Canyon City and south of Bloody Basin road. The rugged canyon of the Agua Fria River defines the

western edge of Perry Mesa. The mesa is excellent example of a semi-desert grassland ecosystem supporting Pronghorn antelope, Deer, and Elk. The semi-desert grassland is one of Central Arizona's most endangered ecosystems due to rapid urban development in these flat grasslands. The Perry Mesa unit also contains some of the most rugged side canyons of the Agua Fria River. Many of these canyons have perennial water sources that not only feed the river, but also provide mesa top wildlife with water. The archeological resources of the Perry Mesa area are one of the primary reasons for the creation of the Agua Fria National Monument. In a 1995 report published by the Arizona Archaeological Society, Ahlstrom and Roberts say "The Perry Mesa region is significant archaeologically because the sites represent a complete Classic period community situated within a bounded environment" and further on "Lastly, the Perry Mesa region is probably one of the better places in Arizona to study Classic period socio-political structure." Without wilderness the unique archeological and ecological qualities of the Perry Mesa unit will be severely impacted over time.

Agua Fria River Canyon



Size: 11,892

Unit Description:

The Agua Fria River Canyon is an extraordinary place located between the Central Mountains and the Basin and Range geographic provinces. It is located about 40 miles north of Phoenix on the east side of I-17, immediately north of Black Canyon City in the newly created Agua Fria National Monument. The thick riparian vegetation of willows and cottonwoods that is present in some places along the 12-mile proposed river corridor nurtures many bird species, such as wintering Bald eagles, Zone tailed hawks, and many other migrating birds. The Agua Fria River Canyon and the surrounding mesas contain numerous archeological sites that represent a time when hundreds or even thousands of people inhabited the now sparsely populated region. The river normally flows year round through the length of the canyon, but in recent years has dried up in some sections from upstream pumping. The Agua Fria and its side canyons are extremely sensitive places with valuable archeological and

ecological resources that wilderness protection can help preserve not only future generations, but for the preservation of biodiversity as well.

Wilderness Characteristics

Naturalness: The Agua Fria River Canyon and Perry Mesa proposed wilderness units "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" as outlined in The Wilderness Act of 1964. The photographic documentation included within this report starting on page 49 shows the natural condition from various vantage points within and outside the proposed unit. See photos: Various impacts have been documented and explained in the "Possible Conflicting Resource Issues" section of this proposal.

Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation:

The Agua Fria and Perry Mesa proposed wilderness units possess both opportunities for solitude and primitive and unconfined recreation. The opportunities for both exist within all or most of both the units. The BLM's Wilderness Inventory and Study Procedures Handbook H-6310-1.22 section (b)(1) gives direction on the assessment of solitude in inventory units. In this section five features for evaluating solitude are given.

- a. Size and configuration: both units meet the 5,000-acre size criteria, and are not long and narrow or have irregular extensions or cherrystems.
- b. Topographic screening: There are many large and small canyons that provide excellent opportunities for solitude in both wilderness units. The rolling hills of the mesa tops provide enough topographic relief in many places to allow the visitor to experience solitude in a relatively flat environment. The ability to see large distances from the mesa tops and not see human improvements is an outstanding

wilderness characteristic that cannot be experienced in many other places in Arizona.

c. Vegetative screening: Vegetative screening in the Canyon bottoms and some hillsides is outstanding. The mesa tops are mostly semi-desert grassland making vegetative screening poor, but this does not necessarily mean that these areas lack opportunities for solitude. The BLM Handbook H-6310-1 section .13(B) 3(C) 1b explains, "Do not assume that simply because an area or portion of an area is flat and/or unvegetated, it automatically lacks an outstanding opportunity for solitude." This guidance is very appropriate in the mesa top areas of both proposed units. There is a unique feeling of solitude that is different than the classic secluded hide away type place that provides solitude; it is a feeling of grandeur of amazement for such a wild wide-open space.

d. Ability of user to find a secluded spot: seclusion in the many washes and canyons is not difficult. There are also opportunities on the mesa tops where the grasses are tall that provide outstanding opportunities for solitude.

e. Presence of outside sights and sounds: The only The Endangered American Wilderness Act of 1978 addressed the issue of "purity" and how congress did not intend for wilderness designation to be completely isolated from the "sights and sounds" of man (H. R. 95-540). In the house report (No. 95-540) referring to the Sandia Mountain Wilderness in New Mexico as quoted in the BLM handbook H-6310-1 states:

"The "Sights and sounds" of nearby Albuquerque, formerly considered a bar to wilderness designation by the Forest Service, should, on the contrary, heighten the public's awareness and appreciation of the area's outstanding wilderness values."

This standard applies in the case of the Navajo-Westwing Power line that bisects the Perry Mesa and Agua Fria River Canyon units. See the narrative below in the

"Possible Conflicting Resource Issues"
section.

Primitive and Unconfined Recreation: The Agua Fria River Canyon and the Perry Mesa proposed wilderness units allow a variety of primitive and unconfined recreational activities. The units offer various levels of hiking, from flat walking on the mesas, to rock scrambling and canyoneering in the nearby canyons. Climbing possibilities do exist in the canyons, to what extent is unknown. Backpacking, hunting, horseback riding, photography, bird watching, and sightseeing for botanical, zoological, and especially archeological features are all possible primitive and unconfined recreational opportunities within the Agua Fria River Canyon and the Perry Mesa units. Some stories at Prescott College refer to individuals who have kayaked in the Agua Fria River when conditions have been favorable. The outstanding opportunities to hike and/or backpack in the Agua Fria river area and the adjacent canyons are also outstanding because it is a desert landscape with free flowing water. There are relatively few places in Arizona where one can travel through desert ecosystems without carrying one's own water. This attribute alone makes for outstanding recreational values. Also, visitors can participate in archaeological site viewing in a primitive setting allowing people to get a feel for what it might have been like to live in the Agua Fria River area 1,000 years ago. The sense of solitude and educational understanding of past cultures can be greatly enhanced through cultural site exploration in wild places.

Supplemental Values: Various supplemental values as described in section 2(c) of The Wilderness Act exist in the Perry Mesa and Agua Fria River Canyon proposed wilderness units.

Archeological Values:

Former President Bill Clinton designated the Agua Fria National Monument under the Antiquities Act of 1906 in the purest sense of what the act was created for. The act was created to protect historic, prehistoric, and other objects of historic or scientific interest (American Antiquities Act 1906). The Agua Fria National Monument, specifically the Perry Mesa area, contains over 450 documented archeological sites and six major site clusters with more

than 100 ground-floor rooms (Ahlstrom and Roberts 1995). In 1975, 960 acres of the Perry Mesa area was listed on the National Register of Historic Places. In an attempt to further protect these sites the Perry Mesa Area of Critical Environmental Concern (ACEC) was created in 1987 encompassing 9,440 acres (USDI 1994). The ACEC was created in response to findings that many archeological sites in the area were being unlawfully excavated and destroyed by pothunters. The ACEC also contains seven miles of the Agua Fria River corridor or 2,160 acres. These seven miles are also part of the BLM's suggested wild river segment, documented in the Final Arizona Statewide Wild and Scenic Rivers Legislative Environmental Impact Statement of 1994 (USDI 1994). In 1996 the Phoenix BLM and the Tonto National Forest were given management of an area encompassing 50,000 acres, encompassing all of Perry Mesa and the surrounding areas of archaeological concern, which was added to the National Register of Historic Places (http://www.az.blm.gov/fr_nlcs.htm 2002). There is hope that monument designation will assist the BLM in preventing further destruction of this culturally rich area. This registered historic place and the ACEC are just two of the reasons that justify the monument designation. The reason for making this point is to make it clear that national monument designation directs the BLM to protect the objects identified in the proclamation, and that protection is paramount and all other multiple uses are secondary.

The archaeological significance of the Agua Fria NM is greater than the proclamation for the monument suggests. As stated above, there has been six sites recorded that have over 100-pueblo style ground-floor rooms and many more sites including but not limited to field houses, rock art, agricultural terraces, watch towers, and resource procurement sites. The time period of the major occupation of the Perry Mesa region is called the Classic period and placed at AD 1200-1450 (Ahlstrom and Roberts 1995). In the 1995 report published by the Arizona Archaeological Society, Ahlstrom and Roberts say "The Perry Mesa region is significant archaeologically because the sites represent a complete Classic period community situated within a bounded environment" and further on "Lastly, the Perry Mesa region is probably one of the better places in Arizona to study Classic period socio-political structure" (p74). These studies show the richness of the Perry Mesa area and they suggest that research is not finished even though most of the larger sites have been mapped or disturbed; much

information can still be gained from many of the smaller outlying sites. The various archaeological studies have done much to enhance our knowledge of the prehistoric peoples that once inhabited the Agua Fria National Monument and without this knowledge; monument status would not have been gained. Now it is a known place and needs more protection from pothunters, recreationalists, and even researchers. One way to provide this protection is with wilderness designation, which will allow sites to be visited, but will greatly limit the ability of pothunters, visitors, and researchers to use motorized equipment to access these cultural sites.

Historical Values:

The historic values of the river corridor can be viewed as pieces of the past mining history from the late 19th century and early 20th. The historic Richinbar Mine is the largest patented claim in the area and is located on the western edge of the Agua Fria canyon on Black Mesa. This mine produced lode gold and silver and had a post office registered from 1896 to 1912. The Richinbar mine itself produced gold from two shafts on the rim of Black Mesa (USDI 1994).

Geologic Values:

The geologic values are largely overlooked in the Agua Fria area. The existence of Tertiary basalt flows, from what is thought to be a shield volcano named Joes Hill just east of the Agua Fria River canyon on top of Perry Mesa, and the underlying Precambrian rocks mark an unconformity of at least 1 billion years (Ahlstrom and Roberts 1995). The Tertiary basalt flows are layered and demonstrate various eruptions and stages of volcanism of the area. The interpretation of this geologic history can be done from inside the Agua Fria River canyon, and it plays a large role in the cultural prehistory of the Agua Fria River and the Perry Mesa region making the outstanding wilderness values of the geology, ecology, cultural history, and the educational potential inseparable from each other.

Ecological Values:

Various ecological representations can be found in the Agua Fria National Monument. The Mesa tops are semi-desert grassland dominated by tabosa grass (*halaria mutica*), with thickets of mesquite (*Prosopis velutina*) and acacia (*Acacia greggii*) growing near washes. Inside the canyons of the

Agua Fria NM on the south facing slopes the Sonoran desert scrub vegetative community occurs with saguaro (*Carnegia gigantea*), palo verde (*Cercidium microphyllum*), and jojoba (*Simmondsia chinensis*) as some of the dominant plant species of this community. The north facing slopes are dominated mostly by chaparral with common species including shrub live oak (*Quercus turbinella*), manzanita (*Arctostaphylos pungens*), and prickly pear (*Opuntia engelmannii*). In the bottoms of the steep rocky canyons of the Agua Fria River, native deciduous trees such as cottonwood (*Populus fremontii*) and sycamore (*Plantanus wrightii*) exist in large galleries. The existence of these galleries and perennial free flowing water in the main canyon of the Agua Fria River, as well as in numerous side canyons provides unmatched habitat for various threatened and endangered and many sensitive species. In 1987 the Larry Canyon ACEC was created to "protect a rare, pristine riparian deciduous forest within a desert ecosystem" (http://www.az.blm.gov/fr_nlcs.htm 2002). The creation of this ACEC as well as the Perry Mesa ACEC further demonstrates that there are outstanding supplemental wilderness characteristics to be protected in the Agua Fria National Monument.

Bald eagles (*Haliaeetus leucocephalus*), a federally listed endangered species, have been seen in the river corridor during migration. Spikedace (*Meda fulgida*) a federally listed threatened fish species, historically inhabited the Agua Fria, but is no longer present (USDI 1994). Other candidate and state or federal sensitive species that have been observed include Peregrine falcons (*Falco peregrinus anatum*), Lowland leopard frogs (*Rana yavapaiensis*) Desert tortoise (*Gopher agassizii*) Mexican garter snakes (*Thamnophis eques*), Gila chub (*Gila intermedia*), Common black hawks (*Buteogallus anthracinus*), and Gila monsters (*Heloderma suspectum*) (USDI 1994). The US Fish and Wildlife Service also submitted information pertaining to species that may be present. Candidate Category 1 species: is the Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), Canidate Category 2 species: Spotted bat (*Euderma maculatum*), California leaf-nosed bat (*Macrotus californicus*), Yavapai Arizona pocket mouse (*Perognathus amplus amplus*), Loggerhead shrike (*Lanius ludovicianus*), Ferruginous hawk (*Buteo regalis*), Chuckwalla (*Sauromalus obesus*), Arizona toad (*Bufo microscaphus microscaphus*), Desert sucker (*Catostomus clarki*), hohokam agave (*Agave murpheyi*), Lowland leopard frog (*Rana yavapaiensis*),

Mexican garter snake (*Thamnophis eques*), Desert tortoise (Sonoran population) (*Gopherus agassizii*). Some of the species in this list occur as species that have been observed.

As described above the fish and wildlife values of the river and the surrounding mesas can be shown through a list of threatened, endangered, or sensitive species, but also through the numbers of common species that can be viewed. Pronghorn, mountain lion, raccoons, red tail hawks, javelina, mule deer, rock squirrels, great blue herons, and white tail deer all inhabit the area and use the water source of the river. There are even reports of Elk coming down in to the canyons for water. Concentrations of native species in desert ecosystems in the Sonoran desert scrub ecosystem type is limited due to the low occurrence of perennial rivers and streams in the lower elevations of the Sonoran Desert (Arizona Rivers Coalition 1991). The potential for native fish reintroduction is present for the desert pupfish (*Cyprinodon macularius*), Gila topminnow (*Poeciliopsis occidentalis*), and Gila Chub (*Gila intermedia*) (USDI 1994).

Riparian areas and corridors in desert ecosystems provide valuable habitat and migration corridors for many animal species. It has been estimated that 80% of native wildlife species and 90% of bird species are at least partly dependent on riparian areas to sustain life (Tonto National Forest 2001) (Comus 2000). Riparian areas make up less than 1% of western lands, and in Arizona 90-95% of these areas have been lost over the last 100 years (Tonto National Forest 2001). Since the Agua Fria River is a part of the 5-10% that is left then everything that can be done to save this small piece of what is left is necessary.

Possible Conflicting Resource Issues:

When the BLM considers the Agua Fria River Canyon and Perry Mesa areas for wilderness consideration should be given to the existence of power lines, stocktanks, wildlife water catchments, and travelways that do not fit the BLM's definition of a road. The evaluation of such lands should take into account the supplemental wilderness values that are clearly outlined in the documentation of the Agua Fria Wild and Scenic River Study as well as the reasons for the Perry Mesa and Larry canyon ACECs.

Powerlines:

The Arizona Public Service Navajo-Westwing 500 kV powerline right-of-way (ROW) that crosses the Agua Fria River just below Horseshoe ranch and continues up and over the east side of Joes Hill and then down into the Agua Fria River canyon at the mouth of Lousy Canyon cannot be included in any part of a wilderness study area, but its existence does not exclude public lands immediately around it from wilderness study. The Endangered American Wilderness Act of 1978 addressed the issue of "purity" and how congress did not intend for wilderness designation to be completely isolated from the "sights and sounds" of man (H. R. 95-540). The existence of power lines near wilderness areas occurs near or on the boundary of wilderness in many instances here in Arizona. The Separation of Sycamore Canyon Wilderness and Red Rock Secret Mountain Wilderness is done with a high-tension power line along a ridge that can be seen from deep in the heart of Sycamore Canyon. This does not make it any less of a wilderness, but actually increases the wilderness values of the area by heightening, "the public's awareness and appreciation of the area's outstanding wilderness values", such as outlined in the BLM handbook H-6310-1-.2b (1)(e). In Organ Pipe Cactus National Monument Wilderness boundaries have been located on both sides of Puerto Blanco road. This road travels for over twenty miles through the middle of the Organ Pipe Cactus National Monument Wilderness. This demonstrates that wilderness boundaries can be drawn around the existing imprints of man. Furthermore the power line does not have an access road that travels under it, so it does not require administrative access by means of motor vehicle, but maybe through helicopter. This lack of an access road is largely beneficial to wildlife such as pronghorn allowing them an open corridor for movement between the two possible units. In conclusion, the significant impacts of the power lines would be evaluated under the BLM handbook, H-6310-1-.13 (C) 3, as a developed rights-of-way (ROW) and "the boundary should be drawn on the edge of the ROW" (p17).

Ranching Operations:

There are numerous stocktanks and other ranching related improvements located on monument lands in the areas that have wilderness characteristics. Grazing is not incompatible with wilderness. Grazing guidelines have been established and reviewed by the Wilderness Act of 1964 and

by subsequent legislation in 1980 through the Colorado Wilderness Act. The resulting guidelines were set forth by the House Report (96-617) clarifying that the Wilderness Act intended for continued grazing use in designated areas, and that maintenance and construction of facilities such as fences, line cabins, wells, and stocktanks is acceptable (Browning and others 1988). The problem that arises here is the possible closure of routes leading to stocktanks and other ranching facilities. There are routes that will need to be evaluated in order to determine what their future status should be. There is the possibility of total closure or administrative access only for some routes after the "minimum requirements for maintenance assessment" is conducted by the allotment holder and the BLM. Many of the routes that have been used to maintain ranching facilities have been used to illegally create routes that access archaeological sites in the Perry Mesa ACEC. Many of these user created routes are illegal and should be closed to further use as they impact the archaeological sites and possibly the ranching operations on the mesa.

Wildlife Waters:

There is one known wildlife water catchment on the boundary of the Perry Mesa unit (photo: JW-3-12). The existence of wildlife water catchments in the Agua Fria River Canyon or Perry Mesa units designed and placed by the Arizona Game and Fish Department is not incompatible with wilderness as addressed in the Colorado Wilderness Act, House of Representatives committee report (HR 98-40). This report outlined the need for balanced management activities that related to the maintenance of wildlife water facilities, and does authorize the use of motorized equipment, but only after a minimum requirements study is completed. The BLM Handbook H-8550-1 Interim Management Policy for Lands Under Wilderness Review gives further direction in regards to water catchments/guzzlers in chapter 3, section G. (4), "Certain permanent installations may be permitted to maintain or improve conditions for wildlife (USDI 1995)." Also in Chapter 3 section G. (4)(a) The handbook directs that "Guzzlers may be maintained..." This direction given to the BLM does not make the existence of water catchments a factor in determining naturalness if they enhance the wilderness characteristics of the area by maintaining native wildlife populations (USDI 1995). Furthermore, in appendix D. of handbook H-8550-1 the

BLM interprets the "...minimum requirements for the administration of the area..." as stated in The Wilderness Act of 1964 section 4(C). In this appendix direction is given on how range and big game wildlife developments are to be managed under the "Minimum Data Requirements" and the "Maximum Acceptable Impacts" standards (USDI 1995). These standards and the studies to determine how water catchments/guzzlers enhance native wildlife populations would be applied to all existing wildlife waters with designation of Perry Mesa and Agua Fria River Canyon as Wilderness Study Areas (WSAs).

Routes:

Lastly, the evaluation of routes in and around the areas that have wilderness characteristics within the national monument should be evaluated not only for their impact on wilderness characteristics, but also for their impact on archaeological sites that are accessed through their use. The BLM definition of a road as stated in the BLM handbook under section .13 (A) provides excellent direction on how to determine the actual status of a travelway. Most of the routes south of Bloody Basin road inside the national monument fall under the definition of "a route which was established or has been maintained solely by the passage of vehicles would not be considered a road, even if it is used on a relatively regular basis" (USDI 2001). Many of these routes will have to be evaluated through guidelines outlined in the inventory handbook identifying such things as reason for existence and is that reason still present or is the way solely being used for recreation? This will be a difficult process, but it will ultimately determine if some areas that contain outstanding and remarkable wilderness values become included in WSAs in the Agua Fria National Monument. The BLM should also consider that routes could be closed and restored to a condition that would be compatible with wilderness designation under section .13 (D) of the BLM handbook H-6310-1. The landscape on the mesa tops of the national monument is such that allows for extremely large sight distances by humans as well as other wildlife in the mesa area. This sight distance affects the wildlife, especially pronghorn and deer when a vehicle can be seen in the distance causing them to flee whenever vehicles use this dead end road system. The lack of vegetative screening is the nature of the semi-desert grassland ecosystem and does not prevent the existence of solitude, but it does make the impacts

from roads on wildlife more intense than in areas where more vegetative screening exists. The road system in the Agua Fria National Monument needs further study not only for possible wilderness reasons, but also for ensuring that the objects identified in the proclamation are properly protected.

Conclusion

The 28,667 acres in both the Agua Fria River Canyon and Perry Mesa proposed wilderness units meet all the requirements for Wilderness Study Area designations. The documentation provided here and in the general justifications section of this report supply the required "new and supplemental information" to make this proposal a valid recommendation in the planning process. The results of non-designation have already been seen in this area with the looting and vandalism of archeological sites, wildcat routes, and trashed campsites. Using wilderness to protect the Agua Fria River Canyon and the Perry Mesa units will ensure that these places are preserved for present and future generations in a natural state.

Route Analysis

The Arizona Wilderness Coalition has completed a route inventory for the Agua Fria National Monument. During the data collection process, which lasted about two years, the AWC used many volunteers and two different methods. The data is not as complete as it should be. This can only be attributed to lack of experience in organizing and training volunteers to do good work. The data that was collected and compiled is sufficient enough to make wilderness recommendations based on solid knowledge of what conditions exist on the ground.

The following route descriptions, maps, and photographs should be used together to get a picture of what conditions are on the ground. The Photo numbers are two initials, roll number, and picture number, which looks like this: JW-1-1. If there is more than one photo for a given point commas will be used to separate the photo numbers, such as JW-1-1, 2,3. The maps provided also have route numbers labeled on them, which can be referenced back to the route description and the photos that were taken on that route.

Some of the GIS data has been manually digitized and should be expected to have some small errors. The Navajo-Westwing powerline shapefile is the only data layer that was completely created based on inaccurate data. The BLM and the power companies did not make data for this powerline available. It will have to be corrected before true boundaries can be drawn. It should not significantly change the acreages of the proposed wilderness units.

Individual Routes:

AF-1- 1.15 miles- This route appears to be primarily used for dropping salt licks for cattle. It is a redundant route that receives very little use, as can be seen from the pictures. It does not provide access to any facilities. This route should be closed without a minimum requirements study as salt can be dropped by horseback. Photos: JA-1-15,16,17,18

AF-2- 2.19 miles- This route has re-vegetated and no longer exists. Photos: JA-1-23

AF-3- 1.34 miles- and **AF-4-**.58 miles- These routes provide access to Batt tank, Pipe Tank, and Pipe tank No. 2. A minimum requirements for maintenance assessment should be conducted by the allotment owner and the BLM to determine access needs. They should be closed to public use no matter what the outcome of the study is. Photos: NA

AF-5- 1.21 miles- This route is used to access Bobs tank. A minimum requirements for maintenance assessment should be conducted by the allotment owner and the BLM to determine access needs. It should be closed to public use no matter what the outcome of the study is. Photos: JA-1-25

AF-6- 1.53 miles- This route is redundant and is not needed for the allotment owners operation. It has a couple of user created spurs, which fade out after $\frac{1}{4}$ mile. Photos: NA

AF-7- 1.2 miles- This route provides access to an unnamed stocktank at the head of Lousy Canyon. A minimum requirements for maintenance assessment should be conducted by the allotment owner and the BLM to determine access needs. It should be closed to public use no matter what the outcome of the study is. Photos: NA

AF-8- 3 miles- This route provides access to Lousy tank and has been pushed further on to the mesa to provide access to multiple archeological sites. The route should be closed from photo JW-3-15 to the south west without study as it impacts monument archeological objects as can be seen in the photos. The rest of the route should undergo a minimum requirements for maintenance assessment to determine access needs. It should be closed to public use no matter what the outcome of the study is. Photos: JW-3-12; JW-4-11; JW-3-7,8,9; JW-3-15,16,17,18,20; JW-4-1,2,3,4,5; JW-2-1

AF-9- This route travels in the canyon bottom to access the ADOT well for the sunset point rest area. A minimum requirements for maintenance assessment should be conducted by the BLM to determine access needs. It should be closed to public use no matter what the outcome of the study is. Photos: NA

AF-10- This route no longer exists and should be removed from maps. Photos: NA

AF-11- .92 miles- This route is used to access an unnamed stocktank. A minimum requirements for maintenance assessment should be conducted by the allotment owner and the BLM to determine access needs. It should be closed to public use no matter what the outcome of the study is. Photos: NA

AF-12- 1.24 miles- This route does not access anything. It travels in Badger Spgs Wash for most of its length, compacting soils, and destroying vegetation. At one time it continued through to Bloody Basin rd. It should be closed without study. Photos: JW-1-1,2,8,9; JW-2-4

AF-13- .37 miles- This route may have accessed a mining claim at one time, but it is unclear what its purpose is at this time. Off road vehicle users have been using this steep route, causing erosion. This route should be closed. Photos: JW-1-2,3

AF-14- 2.36 miles- At one time this route-accessed mining claims, but is no longer needed. It has a broken closure device at JA-1-2,3. This route drops into the Agua Fria Canyon, which should be managed as a Wild segment of a Wild and Scenic River. This is contradictory to what the BLM's management goals are for this area after the 1994 FEIS that

identified this section of the Agua Fria as suitable for Wild and Scenic designation. The BLM must manage this river corridor as to not impair its outstanding remarkable values until congress decides to designate the river or not. This route should be closed. Photos: JA-1-5,2,3; JA-2-1,3

AF-15- .56 miles- This route accesses an old prospect pit. It should be closed, as this use is no longer present. Photos: BB-1-1,2

AF-16- 1.49 miles- this route no longer exists and should be removed from maps.

AF-17- 1.20 miles- This route accesses the inner canyon of the Agua Fria and hooks up with AF-14. It should be closed for the same reasons as AF-14. Photos: JA-1-24

AF-18- .26 miles- It is unclear what the original purpose of this route was. It serves no purpose and should be closed. Photos: JA-1-1,6

Inventoried Routes in the Perry Mesa Wilderness Unit

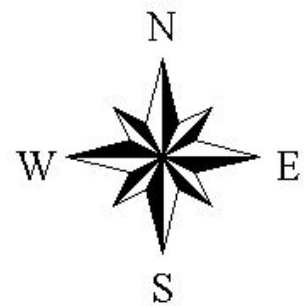
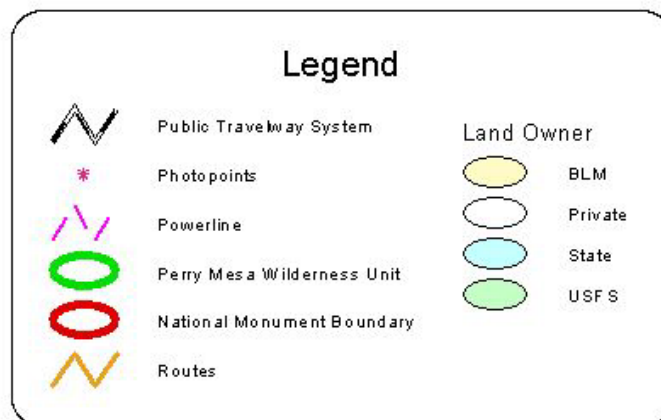
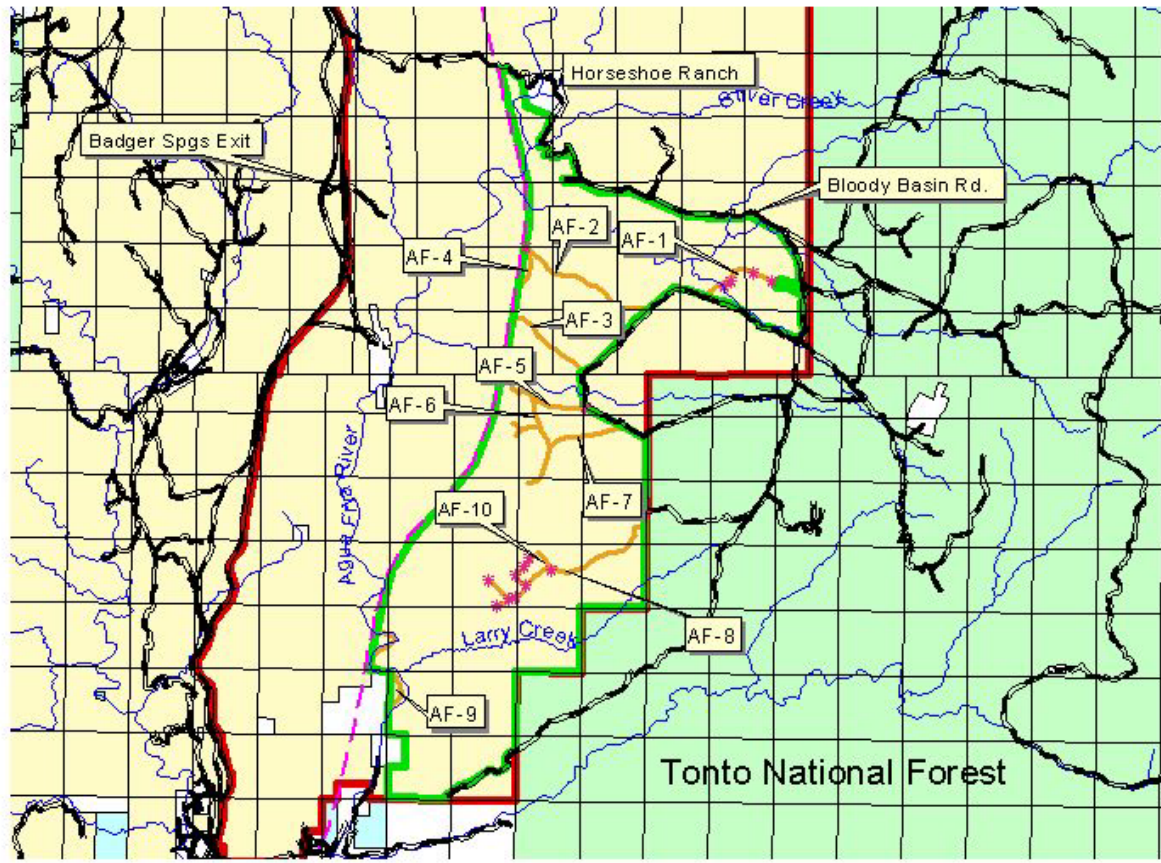
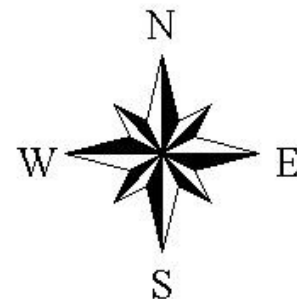
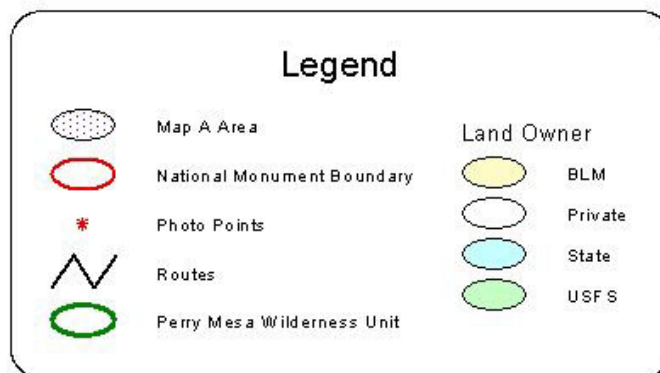
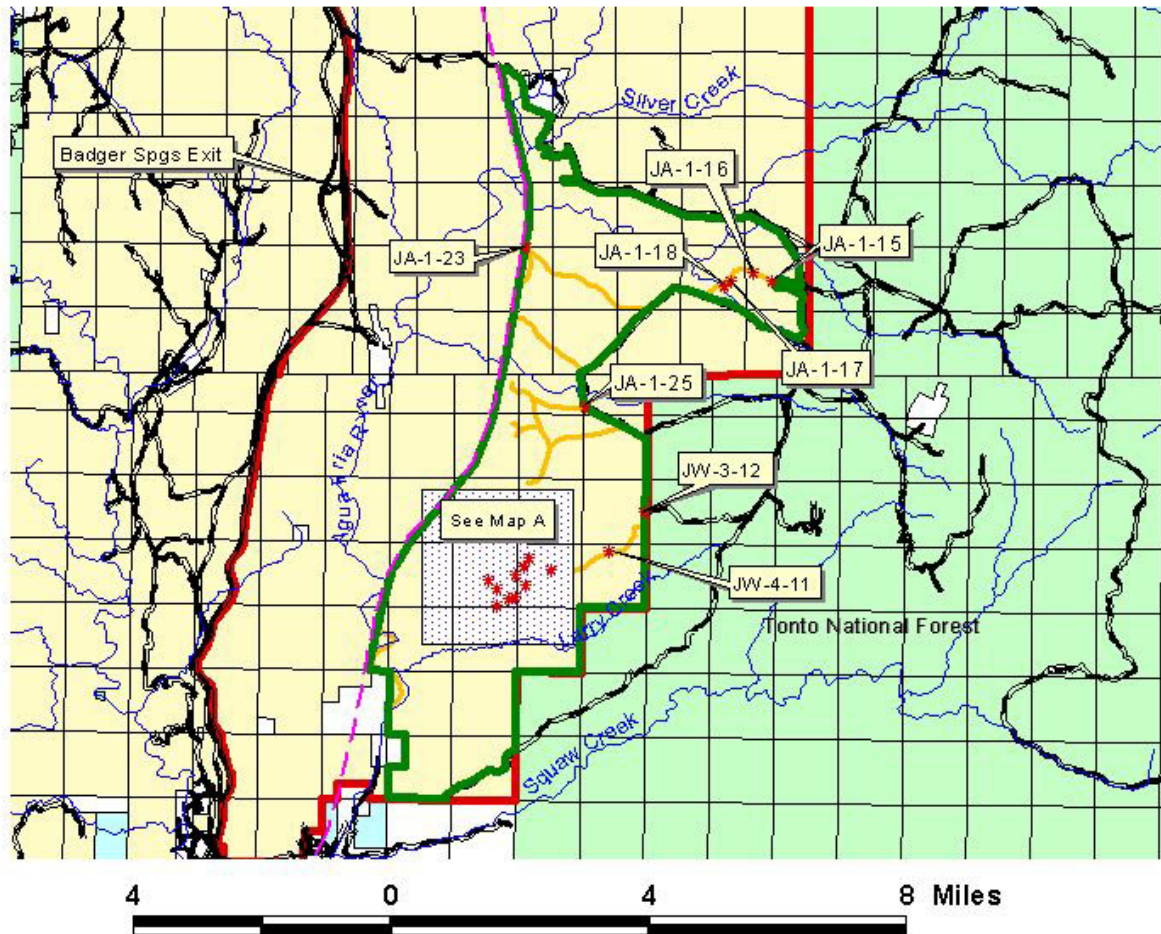
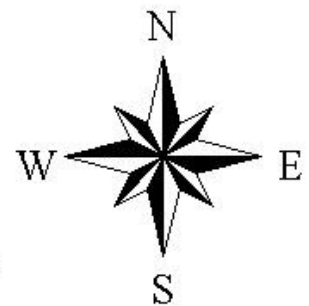
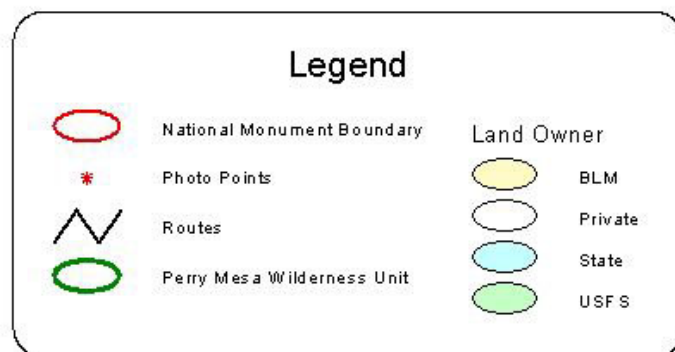
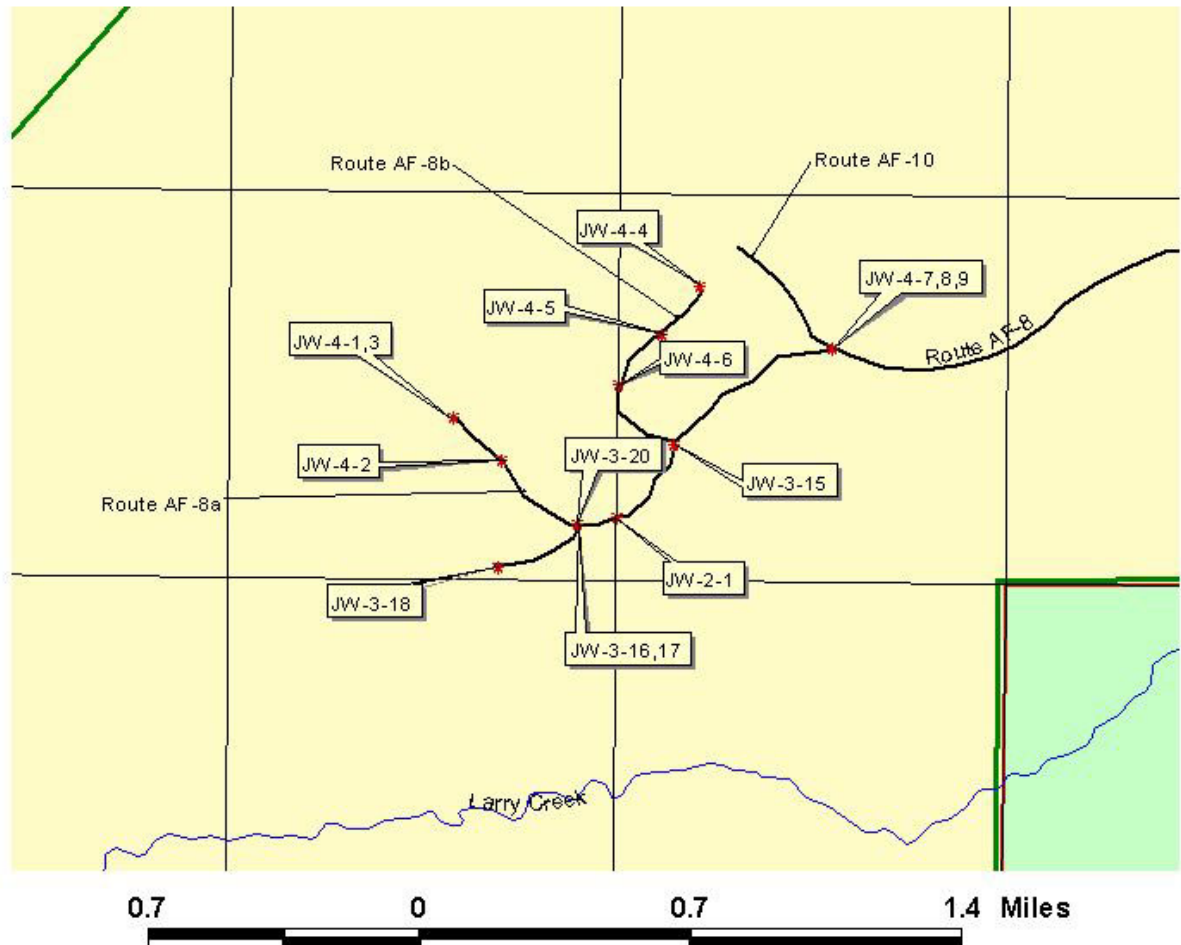


Photo Points for the Perry Mesa Wilderness Unit



Map A

Photo Points



Inventoried Routes in the Agua Fria Wilderness Unit

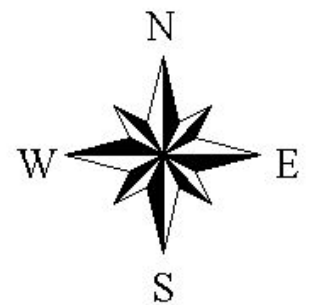
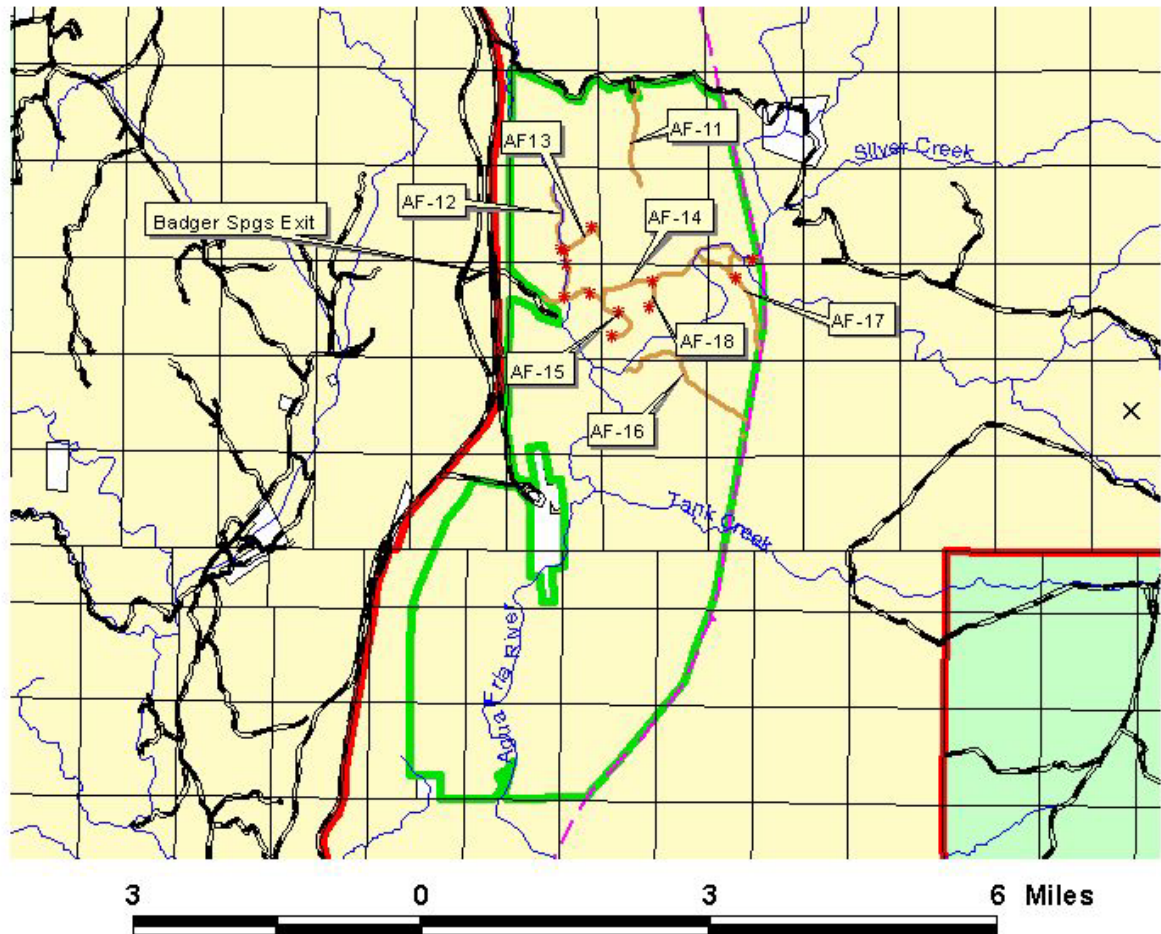
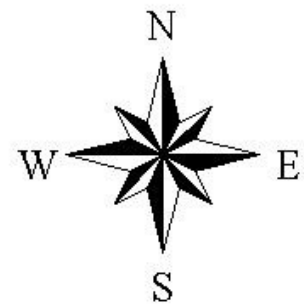
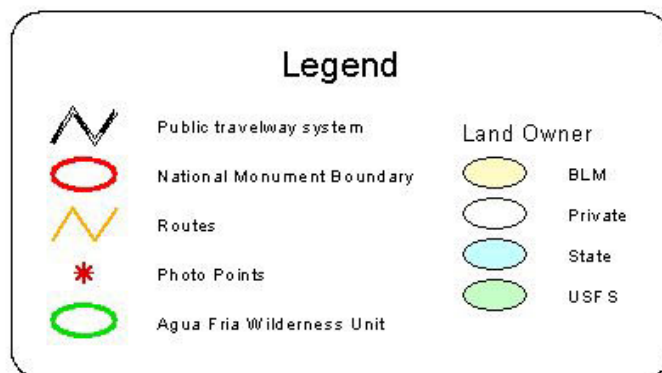
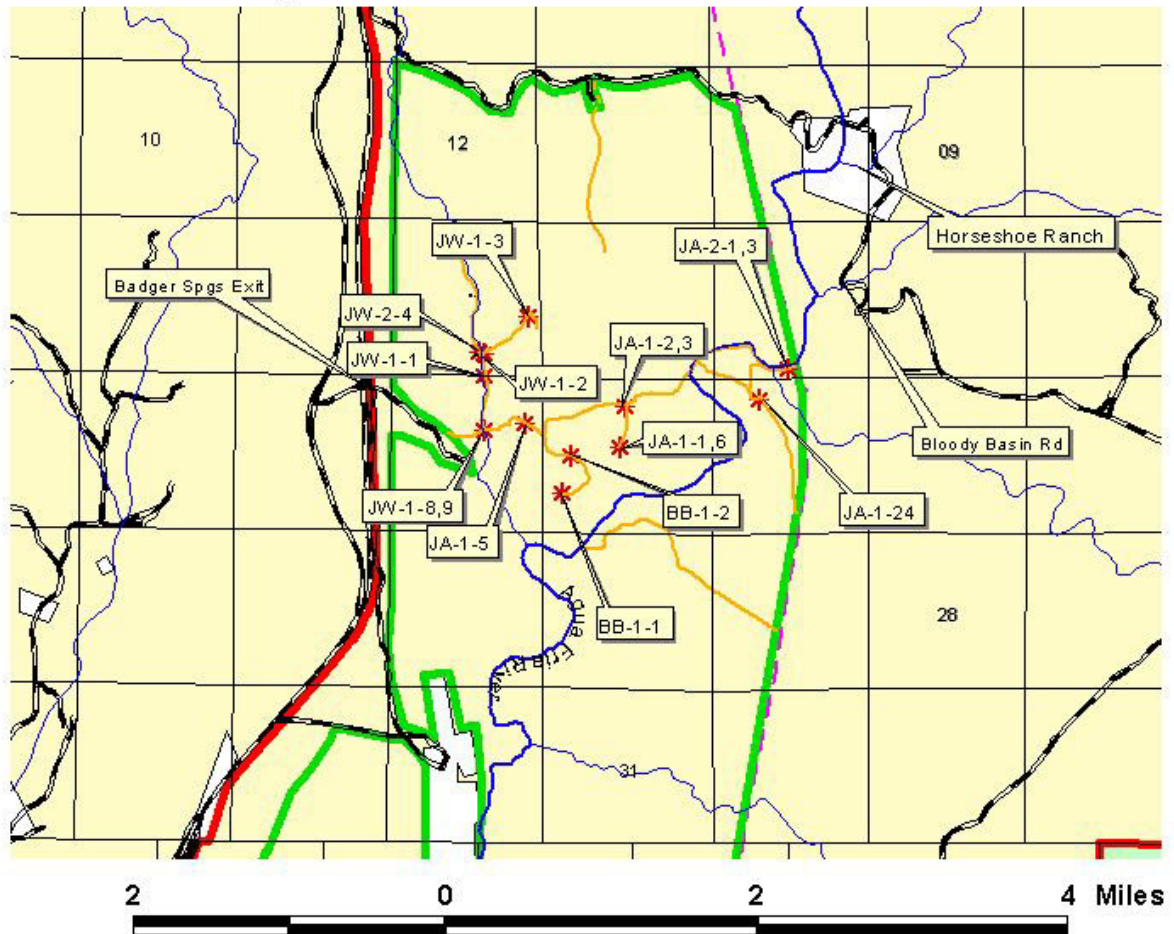
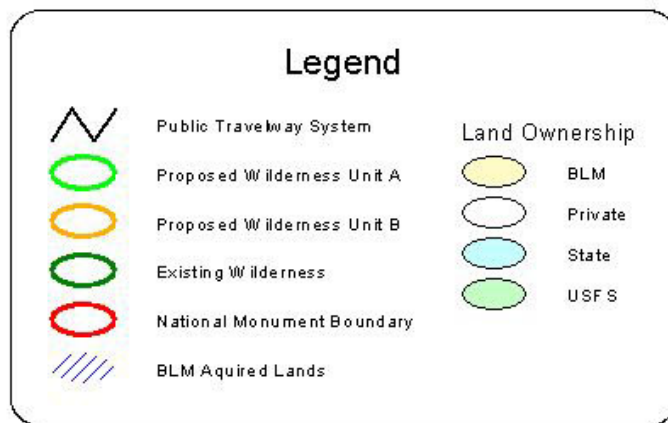
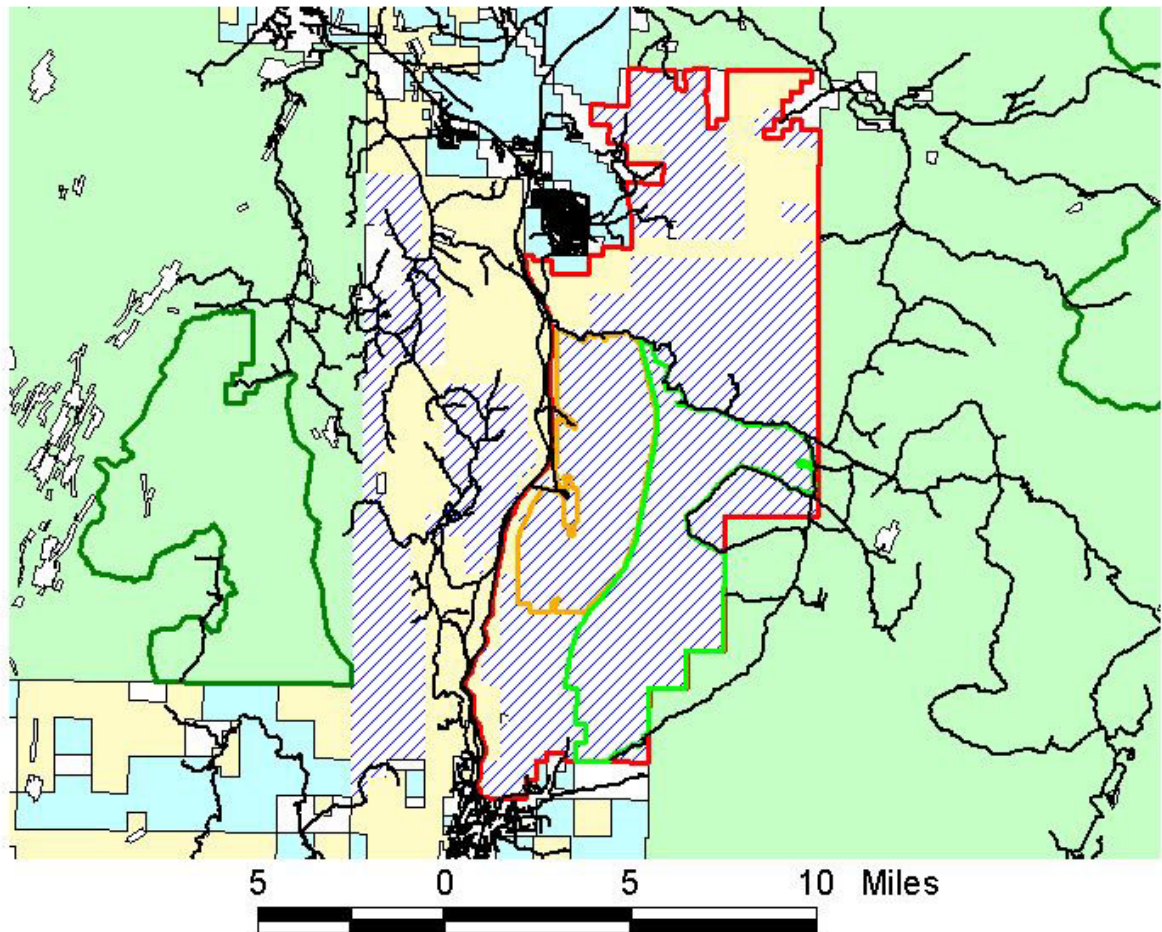


Photo Points for the Agua Fria Wilderness Unit



Aquired Lands in the Agua Fria NM Area



Perry Mesa Photos



Photo: JA-1-15 Direction: W
Route: AF-1



Photo: JA-1-16 Direction: N
Route: AF-1
Salt licks



Photo: JA-1-17 Direction:
SW
Route: AF-1



Photo: JA-1-18 Direction:
SW
Route: AF-1
Route entering Hackberry
Wash, 4x4 required.



Photo: JA-1-23
Route: AF-2
>75% of route is covered
with vegetation



Photo: JA-1-25 Direction:
NW
Route: AF-5



Photo: JW-3-12 Direction: W
Route: AF-8
Wildlife Water Catchment



Photo: JW-3-14 Direction: W
Route: AF-8
Mule deer naturalness and solitude



Photo: JW-4-7 Direction: N
Route: AF-8
Status changes to high clearance 4x4
Evidence of blading



Photo: JW-4-8 Direction: W
Route: AF-8
Small pullout with fire ring and trash



Photo: JW-4-9 Direction: SW
Route: AF-8
Large fire ring with trash



Photo: JW-3-15 Direction: S
Route: AF-8



Photo: JW-3-16 Direction: SW

Route: AF-8

User created route no evidence of construction at junction. This routes sole purpose is for access to archeological sites.



Photo: JW-3-17

Route: AF-8

Pottery found in tire tracks on route. Route is negatively impacting monument objects.



Photo: JW-3-18 Direction: WSW

Route: AF-8

End of route



Photo: JW-3-20

Route: AF-8

Dumped battery left on side of route in Prickly pear.



Photo: JW-4-1 Direction: N

Route: AF-8

End of route at archeological site.



End AF-8 at large
archeological site and
campfire ring with trash
and shotgun shell casings.
Pottery is scattered around
in the entire area.



Photo: JW-4-2
Route: AF-8
Average conditions on AF-8
obviously not a constructed
road.



Photo: JW-4-3 Direction: E
Route: AF-8
Fire ring and trash



Scenic- Looking west into
Larry Canyon



Photo: JW-4-4 Direction: NE
Route: AF-8
End AF-8 at Lousy Tank
(dry)



Photo: JW-4-5 Direction: W
Route: AF-8
Scenic looking through
Lousy Canyon at the
Bradshaw Mtns.



Photo: JW-4-6 Direction: SE
Route: AF-8
Average Conditions



Photo: JW-4-11 Direction: N
Route: AF-8
Naturalness and Solitude

Agua Fria River Canyon Photos



Photo JW-1-9 Direction: N
Route: AF-12
Route in wash impacting
riparian area in Badger
Springs Wash .



Photo: JW-1-8 Direction: S
Route: AF-12
Route in wash, ineffective
closure. Vehicles are going
around on the right hand
side.



Photo: JW-1-1 Direction: NW
Route: AF-12
Gate



Photo: JW-2-4 Direction:
NW
Route: AF-12
Ineffective closure in
Badger Springs Wash.



Photo: JW-1-2 Direction: NE
Route: AF-13
Begin route AF-13 steep
embankment high clearance
required

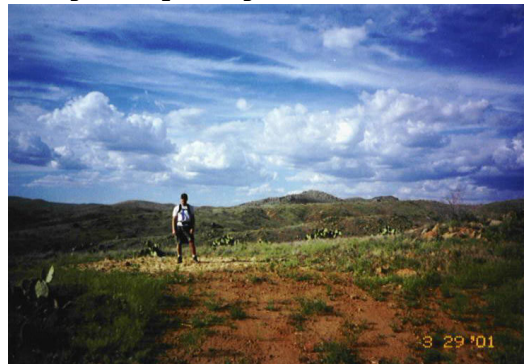


Photo: JW-1-3 Direction: N
Route: AF-13
End Route



Photo: JA-1-5 Direction: E
Route: AF-14
Severe erosion on steep
route. ORV only



Photo: JA-1-2 Direction: NE
Route: AF-14
Ineffective closure
allowing ORV traffic into
Agua Fria Canyon



Photo: JA-1-3 Direction: NE
Route: AF-14
Route condition past
closure from picture JA-1-2



Photo: JA-1-1 Direction: E
Route: AF-18
End of route



Photo: JA-1-6 Direction: SW
Route: AF-18
Looking over Badger Springs
Wash towards I-17



Photo: BB-1-1 Direction: E
Route: AF-15
End of route at old mining
prospect



Photo: BB-1-2 Direction: N
Route: AF-15
Scenic photo looking north



Photo: JA-1-23 Direction:
SW
Route: AF-17
Looking over the Agua Fria
River Canyon. Can see two
routes splitting.



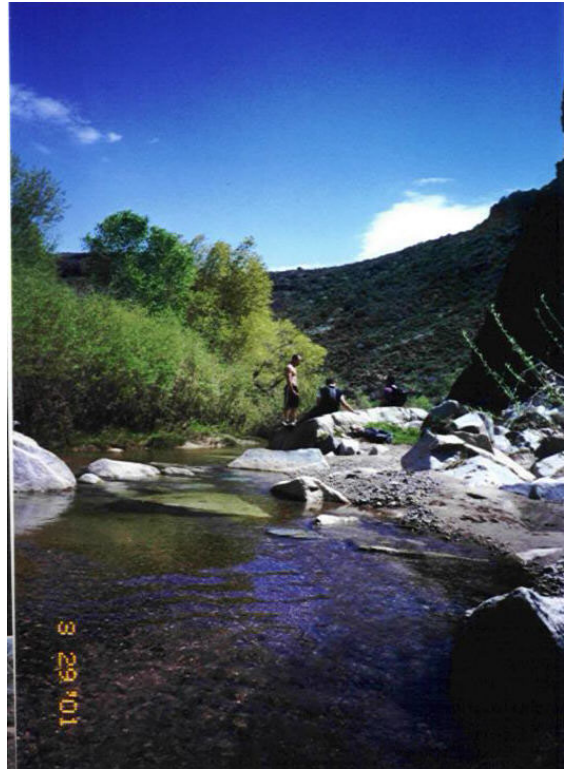
Photo: JA-2-1 Direction: SE
Route: AF-14

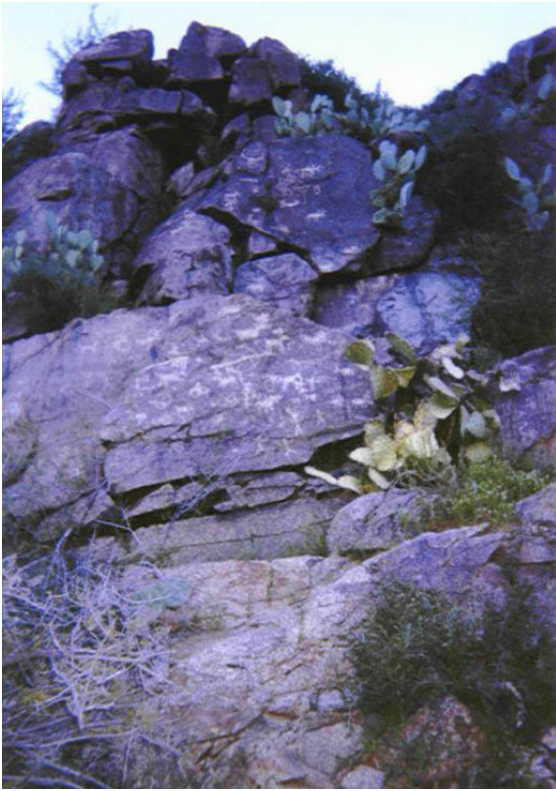


Photo: JA-2-3 Direction:
NW
Route: AF-14
Shack along river corridor.

Naturalness and Scenic Photos:







Review of the Ecological Impacts of Roads

By: Kim Crumbo

According to the National Research Council (1997), there are approximately four million miles of roadway in the United States. While directly covering about one percent of the conterminous U.S., the negative ecological effects of the "road-effect" are greater, about 18-20 percent (Forman 2000). Other credible interpretations place road effects at about 94 percent, including some national parks (Soule 2000).

Studies demonstrate that higher occurrences of adverse ecological impacts increase with higher road densities. Concern over this ubiquitous encroachment produced a large body of scientific literature describing the negative biological effects of roads, including direct wildlife mortality, changed animal behavior, degraded habitat, habitat fragmentation, and the spread of exotic species (see Environmental Defense Fund 1995:53-54, 58).

Primitive Roads

Roads lead to extensive habitat destruction by providing access for numerous other activities, such as logging, mining, grazing, development, ORV joyriding and poaching of wildlife and archeological sites. Roads and habitat destruction form a positive feedback loop: once in place, roads lead to habitat destroying activities, which when exhausted require new roads to reach ever more remote areas to conduct the same activities (TWS). Roads provide excessive access to ATV's that too often create new, illegal tracks through sensitive habitats (Soule 2000), a process evident in the two Monuments as ORV damage extends beyond established travel ways. For example, citizen surveys discovered ATV off-route damage in the Park Service's proposed Grand Wash Cliffs (AWA's Snap Canyon) Wilderness (photos KC-47-7,24,25; KC-48-1,8), and within Paria Canyon-Vermilion Cliff Wilderness (photos KC-40-16; KC-45-17; KC-46-7,9,10,16; LB-2-1; LB-4-22).

The extensive literature on the importance of intact natural habitats makes a compelling case for the potential role of roadless areas as refugia for native biodiversity and as areas crucial to forest integrity and function (Strittholt and DellaSala 2001:1751). Equally impressive is

the mounting body of evidence showing the ecological cost of roads (Strittholt and DellaSala 2001:1751). Suggestions that research on the effects of roads on natural ecosystems is inconclusive (e.g., Heinz Center 1999) is largely unsupported by the literature (Strittholt and DellaSala 2001:1751).

Habitat Quality

Open-road density is a good predictor of habitat suitability for large mammals, with habitat effectiveness and population viability declining as road density increases (Noss and Cooperrider 1994). Because of changes to the environment and danger resulting from roads, many wildlife species have learned to partially or completely avoid roads. For example, grizzlies, elk, mountain lions, small rodents and likely many other animals all show partial or total aversion to roads, to the extent that they either will not cross roads at all, creating a complete dispersal barrier, or use roadside habitat less extensively, effectively reducing total habitat area (Garland and Bradley 1984, Kozel and Fleharty 1979, Lyon 1979, Mclellan and Shackleton 1988, Van Dyke et al. 1986, Wilkins 1982).

In fact, high road densities are a known cause of extirpation of wildlife species. For example, elimination of wolves in Northern Wisconsin by 1960 was correlated with a road density threshold of .94 miles per square mile (Thiel 1985). Similarly, habitat models for elk have shown that road densities higher than one mile per square mile reduces effective habitat to zero (Lyon 1979). In another study, mountain lions avoided improved dirt and hard-surfaced roads and selected home range areas with lower densities of these road types (Van Dyke, Brocke and Shaw 1986). Related studies demonstrated that lions on the Kaibab Plateau and southern Utah avoided logging areas and established home ranges in areas with lower road densities (Van Dyke et al. 1986b).

Fragmentation

The severity of habitat fragmentation precipitating extinction lead two prominent conservation biologists to conclude:

Habitat fragmentation is the most serious threat to biological diversity and is the primary cause of the present extinction crisis (Wilcox and Murphy 1983).

Roads, by destroying habitat and creating dispersal barriers, are a major anthropogenic cause of habitat fragmentation. This, along with wholesale conversion of habitat due to exotic plant invasion, is likely the most devastating impact of roads leading to extirpation or extinction for species that avoid or are unable to cross roads. For such species, a road effectively divides their population in two. More roads divides their population into ever smaller and more isolated groups, each one vulnerable to extinction from all the problems associated with small populations, such as inbreeding, demographic stochasticity (i.e. chance variation in age and sex ratios), environmental stochasticity and anthropogenic habitat loss.

Larger patches of habitat support a wider spectrum of species, including those requiring large home ranges. They are more secure from human-induced effects and are possibly large enough to allow natural processes such as fire to operate without human interference (Strittholt and Dellasala 2001:1751). Even though roads occupy a small fraction of the landscape in terms of total area, their influence extends far beyond their immediate boundaries. Roads precipitate habitat fragmentation by dissecting otherwise large patches into smaller ones, and in so doing create edge habitat along both sides of the road, potentially at the expense of interior habitat (Trombulak and Frissell 2000; Reed et al.1996).

Roads directly eliminate wildlife habitat by occupying space within the ecosystem and by altering adjacent habitat; a 10 meter-wide road covers 10,000 square meters for every kilometer of its length and a much larger area is influenced by edge-effects (Schonewald-Cox and Buechner 1992). Roadside habitats experience increased temperature extremes and solar input, and pollution from exhaust, herbicides, garbage, dust and noise (Noss 1996, Schonewald-Cox and Buechner 1992, Van Dyke et al. 1986, Yahner 1988). This increases habitat disturbance by a minimum of 500-600 meters on either side of a small rural road and a much larger distance for highways (Van Der Zande et al. 1980). Any exclusion of roads from fragmentation assessments presents an incomplete picture of the effects of one of the most predominate anthropogenic changes of North American forested ecosystems (Strittholt and Dellasala 2001:1751).

Poaching and Hunting

Roads result in frequent and often negative encounters between wildlife and humans (Buckley and Pannell 1990).

Wildlife biologists have recognized problems with open roads that expose large mammals such as deer, pronghorn, cougar and bighorn sheep to heavy hunting pressure, poaching, and harassment (Davidson et al. 1996:110; Trombulak and Frissell 2000:24). Other studies indicate that habitats with low road density better protect species sensitive to legal or illegal hunting and persecution (Thiel 1985; Mech et al. 1988; Soule 2000).

Although less visible than habitat destruction, poaching is a serious threat to many wildlife species and would be next to impossible without roads. For example, illegal shooting was found to be the primary cause of death for two small populations of grizzlies in Montana over four years of study, resulting in mortality for five out of 19 radio-collared bears (Knick and Kasworm 1989). Species vulnerable to poaching found within the Arizona Strip include bighorn sheep, mule deer, mountain lions, desert tortoise, raptors and condors.

Interestingly, road closures may result in greater hunting success rates and perceived improved hunting quality (Lyon et al. 1985:7-9; Gratson and Whitman 2000:308-309; McLaughlin et al. 1989). Increasing the amount of time hunters leave the vehicle and walk probably increases the number of animals seen and the likelihood of a kill (Lyon et al. 1985:7-9). Unroaded areas possibly attract higher-skilled hunters, contributing to greater hunting success (Gratson and Whitman 2000:308). Hunting management through road closures may be appealing to wildlife management agencies and the public because hunting opportunities remains relatively great compared to limiting numbers of hunters by controlled hunts or reducing season length (Gratson and Whitman 2000:309).

Exotic Plants

Roads, including primitive roads, create adverse impacts on natural resources. Possibly the most significant affect on arid and semi-arid biological communities relate to exotic plant invasions along road corridors (see Davidson et al. 1996:111). Disturbed surfaces provide ideal habitat and avenues for exotic plants pathogens and pests to spread, possibly resulting in drastic habitat changes (Trombulak and Frissell 2000; Amor and Stevens 1976). For example, exotic plant species invaded logging roads in Montana forests at all elevations, and ultimately invaded adjacent ponderosa pine and grassland (Forcella and Harvey 1983). In another example, exotic annual plants invaded a pipeline corridor within a woodland, grassland and

chaparral reserve in California and persisted as the dominant plants ten years after the disturbance (Zink, Heindl-Tenhunen and Allen 1995).

Exotic plants dominating huge expanses of western land compete with or displace native plants. Exotic plants provide poor habitat for native wildlife generally adapted to utilizing native flora. Regarding native biodiversity, the long-term implication of exotic plant invasion is ominous. For example, studies of Idaho shrub-steppe habitat shows that sites invaded by non-mycorrhizal exotic plants eliminated vesicular-arbuscular mycorrhizae up to ten years (Wicklow-Howard 1994). Without native mycorrhizal-dependent plants, the fungal propagules may not be able to survive, and as a result the reestablishment of native plants is expected to be difficult.

Scientists suggest that exotic weed invasion might be prevented by restricting access on existing roads (Davidson et al. 1996:112). Research also indicates that large roadless areas with low circumference-to-area ratios offer the best protection of arid and semi-arid ecosystems against wholesale conversion, and that maintaining their roadless character offers the most economical strategy for preventing the spread of introduced grasses to relatively undisturbed areas (see Davidson et al. 1996:112). Research also underscores the importance to manage roadless areas responsibly and restore them where necessary (Strittholt and Dellasala 2001; DellaSalla et al. 1999; Strittholt et al 1999).

Archaeological Impact

Obviously, roads inadvertently or deliberately constructed through archaeological sites severely impair cultural resources. For example, BLM Route 1100, a bladed road in the Vermilion Cliffs, has greatly exacerbated damage to the West Bench Pueblo (photo KC-28-24). Vehicular access provided by primitive roads also facilitates illegal excavation and collecting of archaeological resources. For example, improvement in mine-related roads in the 1980s outside Grand Canyon National Park resulted in increased visitation to the Kanab Plateau and a corresponding increase in vandalism to cultural resources (Huffman 1993). "Inadvertent vandalism," through campsite proliferation and expansion, campfire ring construction, woodcutting, and off road travel comprises a serious threat to archaeological resources (Sullivan et al. in press; see Vermilion Cliffs photos CB-1-22, KC-41-5, LA-3-18, and LA-3-32).

Highway Mortality

Besides poaching, hundreds of thousands of animals are killed on our nations roads by cars every year. Bears, raptors, snakes, deer, small birds, small mammals are all victims of roadkill, resulting in significant population declines. For example, 146,229 white-tailed deer were killed on highways across the U.S. in 1974 and in Pennsylvania alone 26,180 deer and 90 bears were killed by cars in 1985 (Feldhamer et al. 1986). Noss (1996) reports that automobile impacts caused 65% of documented Florida panther mortality since 1972. Considering there are only 20 of these magnificent cats in the wild, road kill is a major threat to their long-term survival, as it is to many other species.

It is clear that roadways, especially if paved, substantially damage snake populations (Rosen and Lowe 1994:1). From the perspective of reptile conservation, heavily used roads, especially high-speed paved roads such as the proposed paved Toroweap road, are clearly inappropriate in designated natural areas such as reserves, parks, monuments, and wildlife refuges where species and ecosystem conservation is a priority (Rosen and Lowe 1994:5-6).

Soil Impacts

In the Southwest, roads and associated activities are the primary cause of extensive arroyo cutting during this century (see Bahre 1991). Vehicular traffic directly destroys biological resources by crushing vegetation and microbiotic crusts. The resulting soil compaction retards revegetation. In addition, adequate maintenance of primitive roads in remote locations imposes significant ecological as well as monetary costs. Poorly located or unmaintained roads often result in serious erosional problems (Moll 1996; Ketcheson and Megahan 1996). Severe gully formation negatively impacts soils, vegetation, and archaeological resources. The most practical and economical long-term mitigation of these problems lies with closure and revegetation (Moll 1996).

Plant Poaching

Other undesirable consequences of road access include illegal collecting of rare plants and animals (Noss 1995).

Restoration

Vehicular traffic directly destroys biological resources by crushing vegetation and microbiotic crusts and retards revegetation through soil compaction. A review of

the literature underscores the importance to conservation of not building new roads in roadless or sparsely roaded areas and of removal or restoration of existing roads to benefit native biota (Trombulak and Frissell 2000:18,26). Sections of the Monument's spectacular and biologically rich areas also contain a network of rough jeep trails that impact natural resources such as desert soils and vegetation, and probably adversely affect wildlife species such as big horn sheep and mountain lion. This problem will certainly accelerate should the area remain open to mechanized access. Closure and active restoration of impacted areas would greatly facilitate ecological recovery (see Strittholt and Dellasala 2001).

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July 9th, 2002

Kathy Pedrick
Agua Fria NM Manager
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Phoenix, AZ 85027

Dear Kathy Pedrick:

The Sierra Club Grand Canyon Chapter and the Arizona Wilderness Coalition (AWC) thank you for this opportunity to offer comments on the Agua Fria National Monument, we hope that our comments are informative and helpful in the ongoing scoping process. We have been developing our wilderness proposals for the monument and have begun to learn and appreciate the outstanding resource values that the Agua Fria NM has to offer. With the start of this planning process the AWC is excited to work with your staff in a collaborative effort to develop wilderness alternatives for the Agua Fria National Monument.

In this time before the scoping meetings there are a few things we would like to bring to your attention that we feel will have significant ramifications for the entire planning process. In our research we have realized that certain lands in the Agua Fria National Monument have been acquired by the BLM since the last Resource Management Plan in 1988. Under the USDI BLM Wilderness Inventory Handbook H-6310, in section .06(B) "All lands acquired through exchange shall undergo a wilderness inventory." Also in section 1.06 (D) it is outlined that lands that have "...new or supplemental information regarding resource uses and condition..." should be inventoried for wilderness characteristics. The January 2000 Agua Fria NM proclamation is the new "...information regarding resource uses...". An integral part of the wilderness inventory process is differentiating roads from routes. The Phoenix BLM has done a route inventory, but this inventory did not collect information with the intention of differentiating roads from routes based on the definition of a road as outlined in H.R. 94-1163 page 17, 1976 and explained in the handbook H-6310-.13 (A) 1., "The word 'roadless' refers to the absence of roads which have been improved and maintained by mechanical means to insure relatively regular and

continuous use. A way maintained solely by the passage of vehicles does not constitute a road.”

The Arizona Wilderness Coalition believes it would be misleading and ethically questionable, if not legal to produce a map showing all routes and roads in an area without first legally defining roads. Showing the public a map of all the routes and asking them which ones they want open is not what the BLM is legally mandated to do. In the January 2000 Agua Fria National Monument Proclamation it clearly states, “For the purpose of protecting the objects identified above, all motorized and mechanized vehicle use off road will be prohibited, except for emergency or authorized administrative purposes.” This means that all routes existing at the time of the proclamation that didn’t meet the definition of a road should now be closed. There is no evidence that management has followed this mandate to date. Furthermore, from a legal perspective it would be pointless for the BLM to go to the expense of producing a map of all of the routes in the Agua Fria NM and to display it to citizens without using the FLPMA definition of a road as stated above.

The Arizona Wilderness Coalition believes the BLM should be defining roads using the only legal definition given to them by congress, as quoted above. The protection of the monument objects should be the number one priority of the BLM, not providing or identifying recreational opportunities for Off Road Vehicle use through a route inventory process. Addressing this priority and adequately managing our National Monuments can be achieved without sacrificing the BLM’s multiple use philosophy. Multiple use does not dictate that all uses must occur within a given area. The art of multiple use management is to be able to determine the appropriate mix of uses for a given area. The proclamation clearly prohibits motorized and mechanized vehicle use off of roads. To continue to inventory off road opportunities in the monument would be a waste of time and resources – for the BLM and everyone involved. We expect that the BLM will see the open house meetings as an opportunity to inform the public of the terms of the proclamations and to ensure them that there are other lands in the Phoenix resource area that can and do provide for Off Road Vehicle opportunities.

The Arizona Wilderness Coalition thanks the BLM for this opportunity to offer comments and is available to answer any questions you may have.

Please acknowledge that you have received and processed this letter by contacting us through mail, phone, or e-mail.

Sincerely,

Jason Williams
Arizona Wilderness Coalition
Central Mountains/Sonoran Region

AND

Julie Sherman

Arizona Wilderness Coalition 2002

Sierra Club Grand Canyon Chapter

CC: Elaine Zelinski
AZ BLM State Director

Carl Rountree
AZ BLM Associate State Director

Ken Mahoney
NLCS

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